

1. A method of processing content in a video on demand (VOD) system, wherein the content is identified by a first set of packet identifiers (PIDs), the method comprising:
 - receiving content, the content having marked packets designating packets that are to be encrypted by a first encryption system by setting an encryption flag for all packets designated to be encrypted;
 - selecting packets in the content according to a selective encryption selection criterion to produce selected packets;
 - duplicating the selected packets to produce duplicate copies of the original packets;
 - identifying the duplicate copies using a second set of PIDs;
 - inserting the duplicate copies of the original packets identified by the second set of PIDs into the content; and
 - clearing all encryption flags in the content except for the selected packets having the first set of PIDs.
2. The method according to claim 1, wherein the encryption flag is encoded using transport_scrambling_control data bits.
3. The method according to claim 1, further comprising:
 - identifying packets of content used in trick play modes; and
 - creating forward and reverse trick mode content files and forward and reverse trick mode index tables.
4. The method according to claim 3, further comprising modifying the forward and reverse trick mode index tables to account for insertion of the duplicate copies.
5. The method according to claim 3, wherein the packets of content used in trick play modes comprise intra-coded frames.

6. The method according to claim 3, further comprising storing the forward and reverse trick mode files, the forward and reverse trick mode index tables on a VOD
5 server.

7. The method according to claim 1, further comprising generating a program association table (PAT) and a program map table (PMT) identifying the second set of
10 PIDs.

8. The method according to claim 7, further comprising, storing the PAT, the PMT, and the content on a VOD server.

9. The method according to claim 3, further comprising generating a program
15 association table (PAT) and a program map table (PMT) identifying the second set of PIDs.

10. The method according to claim 9, further comprising storing the forward and reverse trick mode files, the forward and reverse trick mode index tables, the PAT, the
20 PMT, and the content on a VOD server.

11. The method according to claim 9, further comprising encrypting the packets having the encryption flag set using the first encryption system.

25 12. The method according to claim 11, wherein the encryption under the first encryption system is carried out in an off line encryption system.

13. The method according to claim 11, further comprising storing the forward and reverse trick mode files, the forward and reverse trick mode index tables, the PAT, the PMT, and the content on a VOD server.
- 5 14. The method according to claim 11, further comprising encrypting the duplicate copies using a second encryption system.
15. The method according to claim 1, further comprising encrypting the packets having the encryption flag set using the first encryption system.
- 10 16. The method according to claim 15, wherein the encryption under the first encryption system is carried out in an off line encryption system.
- 15 17. The method according to claim 1, further comprising encrypting the duplicate copies using a second encryption system.
18. The method according to claim 1, further comprising adjusting a program clock reference (PCR) in packets containing adaptation fields to account for insertion of the duplicate copies.
- 20 19. The method according to claim 1, further comprising deleting null packets to compensate for insertion of the duplicate copies.
- 25 20. The method according to claim 1, wherein the selecting, duplicating, identifying, inserting and clearing functions are carried out in an offline selective encryption processor (OSEP).

21. The method according to claim 9, wherein the packets are marked in a VOD server.

22. A method of processing content in a video on demand (VOD) system, wherein the content is identified by a first set of packet identifiers (PIDs), the method comprising:
- identifying packets of content used in trick play modes;
 - creating forward and reverse trick mode content files and forward and reverse
 - 5 trick mode index tables;
 - marking packets in the content to be encrypted by a first encryption system by setting an encryption flag for all packets designated to be encrypted;
 - selecting packets in the content according to a selective encryption selection criterion to produce selected packets;
 - 10 duplicating the selected packets to produce duplicate copies of the selected original packets;
 - identifying the duplicate copies using a second set of PIDs;
 - generating a program association table (PAT) and a program map table (PMT) identifying the second set of PIDs;
 - 15 inserting the duplicate copies identified by the second set of PIDs into the content;
 - and
 - clearing all encryption flags in the content except for the selected packets having the first set of PIDs.
- 20 23. The method according to claim 22, wherein the encryption flag is encoded using transport_scrambling_control data bits.
24. The method according to claim 22, further comprising encrypting the packets having the encryption flag set using the first encryption system.
- 25 25. The method according to claim 24, wherein the encryption under the first encryption system is carried out in an off line encryption system.

26. The method according to claim 24, further comprising storing the forward and reverse trick mode files, the forward and reverse trick mode index tables, the PAT, the PMT, and the content on a VOD server.
- 5 27. The method according to claim 22, further comprising modifying the forward and reverse trick mode index tables, deleting null packets and adjusting a program clock reference (PCR) in packets containing adaptation fields to account for insertion of the duplicate copies prior to the storing.
- 10 28. The method according to claim 26, further comprising retrieving the stored content from the VOD server and encrypting the duplicate copies using a second encryption system.

29. A video on demand (VOD) system, comprising:

a selective encryption processor that receives content, the content containing packets that are marked for encryption by a first encryption system, the packets being marked by setting an encryption flag for all packets marked for encryption;

5 the selective encryption processor processing the content for storage on a VOD server, wherein the content is identified by a first set of packet identifiers (PIDs), the selective encryption processor comprising:

a packet selector that selects packets in the content according to a selective encryption selection criterion to produce selected packets;

10 a packet duplicator that duplicates the selected packets to produce duplicate copies of the selected packets and identifies these duplicate copies using a second set of PIDs when the duplicate copies are inserted into the content; and

an encryption flag manager that clears all encryption flags in the content except for the selected packets having the first set of PIDs.

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30. The video on demand system according to claim 29, wherein the encryption flag is encoded using transport_scrambling_control data bits.

31. The video on demand system according to claim 29, further comprising a trick
20 play file processor that identifies packets of content used in trick play modes and creates forward and reverse trick mode content files and forward and reverse trick mode index tables.

32. The video on demand system according to claim 29, further comprising a timing
25 corrector that modifies the forward and reverse trick mode index tables to account for insertion of the duplicate copies.

33. The video on demand according to claim 32, wherein the timing corrector further deletes null packets and adjusts a program clock reference (PCR) in packets containing adaptation fields to account for insertion of the duplicate copies.

5 34. The video on demand system according to claim 29, further comprising a PMT/PAT generator that generates a program association table (PAT) and a program map table (PMT) identifying the second set of PIDs.

10 35. The video on demand system according to claim 29, further comprising an off line encryption system that encrypts packets having a set encryption flag under the first encryption system.

36. The video on demand system according to claim 35, further comprising a session based encrypter that encrypts the duplicate copies using a second encryption system.

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37. The video on demand system according to claim 36, further comprising an add/drop re-multiplexer that deletes either the selected packets or the duplicate copies depending upon a target receiver's decryption capability.

20 38. The video on demand system according to claim 29, further comprising a VOD server that stores the forward and reverse trick mode files, the forward and reverse trick mode index tables, the PAT, the PMT, and the content.

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